

## SCREENING METHODS FOR ENZYMES AND ENZYME KITS

### Abstract of the Disclosure

Recombinant enzyme libraries and kits where a plurality of enzymes are each characterized by different physical and/or chemical characteristics and classified 5 by common characteristics. The characteristics are determined by screening of recombinant enzymes expressed by a DNA library produced from various microorganisms. Also disclosed is a process for identifying clones of a recombinant library which express a protein with a desired activity by screening a library of expression clones randomly produced from DNA of at least one microorganism, said 10 screening being effected on expression products of said clones to thereby identify clones which express a protein with a desired activity. Also disclosed is a process of screening clones having DNA from an uncultivated microorganism for a specified protein activity by screening for a specified protein activity in a library of clones prepared by (i) recovering DNA from a DNA population derived from at least one 15 uncultivated microorganism; and (ii) transforming a host with recovered DNA to produce a library of clones which is screened for the specified protein activity.